



Fast-Track Fuel Cell Truck

GTI and its technology partner, TransPower will deploy a total of five plug-in hybrid fuel cell-electric Class 8 trucks in Southern California, operated by two major truck fleet operators in a phased rollout.

The three trucks deployed in the first phase will be operated at the Port of Los Angeles, by Total Transportation Services Inc (TTSI). Two additional trucks, using new Peterbilt gliders and a new fuel cell configuration, will be deployed in a second phase and will be operated throughout the Los Angeles regions by Daylight Transport, LLC.



The plug-in hybrid fuel cell-electric trucks will be supported by charging and mobile hydrogen fueling infrastructure located at the Port of Los Angeles and in Fontana, much of which is already planned or in place. The vehicles will be fueled onsite from “drop-and-swap” mobile tube-trailers. Frontier Energy will coordinate training, data collection and reporting, and Center for Sustainable Energy will coordinate local community outreach.

Dates: 04/16/2018 – Spring 2020
Grantee: GTI
Partners: TransPower, TTSI, Daylight, Frontier Energy, Center for Sustainable Energy, Hydrogenics, Loop Energy, Peterbilt Motors, OneH2

Grant Amount:
CARB Contribution: \$ 5,081,478
Matching Funds: \$ 1,694,216
Project Total: \$ 6,775,694



Vehicles/Equipment Funded

- Phase 1 (update 3 existing EV Navistar chassis)
- New battery and electric accessory system
 - Hydrogenics fuel cells and on-board hydrogen storage sized for uninterrupted one-shift operation
 - 3 x Electrical Vehicle Supply Equipment (EVSE) stations at the Port of Los Angeles

- Phase 2 (2 new trucks)
- Peterbilt 579 gliders with EV powertrain and battery system
 - Loop Energy fuel cells and on-board hydrogen storage sized for uninterrupted one-shift operation
 - 2 x EVSE stations in Fontana, CA

Lessons Learned

- The proposed project serves disadvantaged communities in the Port of Los Angeles area
- The greenhouse gas emissions reductions from this project are estimated at 77 metric tons CO2e/year/truck
- The team is uniquely qualified to address the project challenges, such as permitting, first responder training and community outreach

Status Updates

- Design complete
- Finalizing updates of 3 existing Navistar trucks for phase 1
- Phase 2 subsystems are in the assembly process

